


SAT ReportCase Number: **P-18-0070**SAT Date: **01/19/2018**Created Date: **01/17/2018**Updated Date: **10/04/2018****Consolidated PMN? N****Related Cases:****Health Related Cases:****Ecotox Related Cases:****Chemical Structure:****Concern Levels:**

<u>Type</u>	<u>Level</u>	<u>Comments</u>
Health (1):	2	Concern for generation of  to chelate nutrient metals and developmental toxicity.
(2):		
Eco (1):	2	
(2):		

PBT Ratings:


<u>Persistence</u>	<u>Bioaccumulation</u>	<u>Toxicity</u>	<u>Comments</u>
3	1	2	

Exposure Based Review:**Health:** Y**Ecotox:** Y**Routes of exposure:****Health:** Dermal Drinking Water Inhalation**Ecotox:** All releases to water**Fate:** 2 ;**P2Rec Comments:****Keywords:**

Dev Blood Bladder, Irr-E

Summary of Assessment:**Fate:****Fate Summary:**

P-18-0070

FATE: Estimations for typical fragment, 

Liquid with MP < 25 °C (E)

$\log K_{ow} = -1.20$ (E)

$S > 10$ g/L at 25 °C (E)

$VP < 1.0E-6$ torr at 25 °C (E)

$BP > 400$ °C (E)

$H < 1.00E-8$ (E)

$\log K_{oc} = 1.00$ (E)

$\log \text{Fish BCF} = 0.50$ (3) (E)

$\log \text{Fish BAF} = -0.05$ (1) (E)

POTW removal (%) = 75-90 via biodeg

Time for complete ultimate aerobic biodeg = wk-mo

Sorption to soils/sediments = low

PBT Potential: P3B1

*CEB FATE: Migration to ground water = slow due to biodeg

Bioconcentration factor to be put into E-FAST: 3

PMN Material:

Overall wastewater treatment removal is 75-90% via biodegradation.

Sorption to sludge is low based on the estimated physical-chemical properties from EPISUITE.

Air Stripping (Volatilization to air) is negligible based on the estimated Henry's Law constant.

Removal by biodegradation in wastewater treatment is moderate to high based on variable composition. Smaller pieces of the molecule are expected to biodegrade.

The aerobic aquatic biodegradation half-life is weeks to months based on variable composition. Smaller pieces of the molecule are expected to

biodegrade.

The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is greater than or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is low based on the estimated physical-chemical properties from EPISUITE.

Migration to groundwater is slow, mitigated by biodegradation.

PMN Material:

High Persistence (P3) is based on the estimated anaerobic biodegradation half-life.

Low Bioaccumulation potential (B1) is based on BCFBAF model estimates.

Bioconcentration/Bioaccumulation factor to be put into E-Fast: 3

Health:

Hazard Assessment:

Absorption: Dermal poor, lung good, GI poor; Concern for generation of [REDACTED] to chelate nutrient metals causing blood, bladder and developmental toxicity. Concern for eye irritation based on the SDS.

Original Test Data Text:

Analog [REDACTED]

Ecotox:

<u>Test organism</u>	<u>Test Type</u>	<u>Endpoint</u>	<u>Predicted</u>	<u>Measured</u>	<u>Comments</u>
Fish	96-h	LC50	93		[REDACTED]
Daphnid	48-h	LC50	>100		" "
Green Algae	96-h	EC50	78		" "
Fish	-	Chronic Value	6.7		" "
Daphnid	-	Chronic Value	>10		" "
Green Algae	-	Chronic Value	>10		" "

Ecotox Values Comments:

Predictions are based on QSARs for [REDACTED]

[REDACTED] effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO₃; and TOC <2.0 mg/L.

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comments
Acute Aquatic:		5	18600	[REDACTED]
Chronic Aquatic:		10	670	
Factors	Values	Comments		
SARs	[REDACTED]			
SAR Class	[REDACTED]			
TSCA New Chemical Category	[REDACTED]			

Ecotox Factors Comments:

Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance EPA estimated environmental hazard of this new chemical substance using the Ecological Structure Activity Relationships (ECOSAR) Predictive Model (<https://www.epa.gov/tsca-screening-tools/ecological-structure-activity-relationships-ecosar-predictive-model>). Based on these estimated hazard values, EPA concludes that this chemical substance has a moderate environmental hazard.

· Substance falls within the TSCA New Chemicals Category [REDACTED]

· ECOSAR chemical class of Polymers-nonionic-low MW [REDACTED].

· Moderate hazard based on acute and chronic concentrations of 18600 ppb and 670 ppb, respectively for the PMN.

Environmental Risk:

· Environmental Risks were identified for this chemical substance based on chronic exposure

Testing Recommendations:

Based on risks identified for the PMN, the following ecotoxicity testing is recommended:

Fish Early Life-Stage- OCSPP 850.1400

Chronic Daphnia- OCSPP 850.1300

Algae- OCSPP 850.4500

SAT Chair:

Fate assessor:

Ecotox assessor:

Health assessor: